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ABSTRACT

Four families with hearing impaired preschoolers who were involved in parent-infant education at the John Tracy Clinic in Los Angeles were included in a study of the effects of limited English speaking parents on children with hearing impairments. The 6 month parent-infant education program was provided in Spanish. Sessions were adapted to each family's unique needs, with emphasis on such aspects as the parents' role as language stimulators for their child, use of Spanish or English with each child, care and use of appropriate amplification, implications of hearing loss, behavioral management techniques, and particular problems expressed by parents, videotaped family interactions before and after the intervention were analyzed according to use of language, parent's teaching styles, parent's language pattern mode, and parent's method of interaction. Results showed that, given instruction in Spanish and encouragement to use Spanish, the parents served as good language models for their children. Skill growth was found in teaching style, language mode, and method of interaction. Among implications of the study was that professionals providing support services need to be competent bilingually in Spanish and English. (CL)

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HEARING IMPAIRED CHILDREN FROM SPANISH SPEAKING HOMES

A Thesis

Presented to

the Faculty of the Department of Special Education

California State University, Los Angeles

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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Patricia Marie Schaeffer-Dresler

December, 1981

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Chapter 1

INTRODUCTION

Background of the Problem

Children born with hearing impairments, or who lose their hearing ability before developing language have a significant disability. Their contact with environmental sound is diminished, and their ability to receive human voice auditorily is impaired, if not totally lacking. Since the ability to hear enables us to learn to talk, hearing impaired children face a strong barrier to verbal communication. In fact, their development of speech and language skills is a long and arduous task because the auditory sense is damaged.

There are numerous factors that will affect the impact of hearing loss on a child's speech and language development. One key factor is the age at which the hearing loss occurs. Children who lose their hearing after they have been listening to others and speaking themselves have already developed some language competency skills. They know how language functions for communicating with others. The degree of their skill depends upon their age when hearing is lost. The five-year-old child has mastered most language structures.

Even the three-year-old child has a wealth of vocabulary and knowledge of grammar. These children all have a language reference that children born with hearing loss have not developed.

Another important factor is the degree of hearing loss. A slight hearing impairment means that there remains considerable residual hearing which the child can rely upon to develop speech and language skills. This is, in fact, what usually occurs with children having mild to moderate hearing losses. However, a greater degree of hearing impairment means that the amount, and equally important, the quality of residual hearing is dramatically reduced. The result is a much more difficult task in learning to talk, with potentially substantial delay in speech and language development (Moores, 1978).

Early identification of auditory disability is another key factor for speech and language development with hearing impaired children. When parents and professionals are aware of the child's hearing disability, then early intervention can commence. This early intervention can consist of many components. For example, medical treatment where necessary, the fitting of appropriate amplification, auditory training and special educational services are all possibilities. The availability of these adequate support services is crucial to

the communication development of the hearing impaired child.

As communication skills begin their development early in the life of infants, it is essential to begin audiological and educational intervention as soon as possible. The first years of life involve considerable growth in the development of an auditory monitoring system of vocal production. This is a feedback system interrelating speech and hearing. Infants initially produce vocalizations for their kinesthetic reinforcement. As they develop their awareness of their own vocalizations and that of others (particularly their parents) through hearing, they attempt to match their vocalizations with others. This is the onset of true babbling. It is also the crucial basis upon which all speech development follows. Children with hearing impairments miss out on this valuable growth time unless early intervention occurs (Pollack, 1970). As they are not hearing themselves or others, or hear only partial information, the vocalizations of the hearing impaired child become limited.

There is considerable evidence that there exists an optimal learning time for language in the early years of life. It appears that language has a time-locked characteristic such that there are certain periods when language is learned naturally, with later language learning assuming a remedial nature. Children who are identified

as hearing impaired while still infants would appear to have a better opportunity through amplification and specific educational intervention to take advantage of the innate language acquisition ability (Glucksberg and Danks, 1975).

Another key factor is involvement of the family. The early language development of all children occurs in the home setting through active and continual verbal interaction between child and parents as well as with other family members. It grows from birth on with frequent exposure to the sounds of the family's language. As the child associates meaning with the sounds being heard, receptive language develops. The child then practices his or her own ability to verbalize through babbling. This lays the groundwork for expressive language and speech. This language process is aided and expanded by the parent's active encouragement (Kretschmer and Kretschmer, 1978).

For the hearing impaired child, the family can provide a learning environment that will help the child in speech and language development. Parents also provide the first contact with medical specialists, audiologists, and educational professionals. Parents gather information, review it, and make key decisions for their child. It is the parents who learn first to cope themselves with the child's hearing loss, and then in turn, aid their child in

adapting. It is the parents and other family members who are influential in guiding the child's first communicative efforts. By their guidance and extended efforts, the child is given specific language intervention. This helps to compensate for the many times the child is not receiving language stimulation in the day-to-day setting because of hearing loss (Ling and Ling, 1978).

Statement of the Problem

A critical consideration for the hearing impaired child is consistent exposure to an enriching language environment. Exposure to two different languages simultaneously confuses and complicates the already difficult task of language learning by hearing impaired children. Yet this dual language situation occurs frequently. Most often, there is use of one language in the home, and of a second language in the community and school. Several countries have long experienced these linguistic differences, for example Canada (French/English), Belgium (Flemish/French), or Switzerland (Swiss dialect/German), among others.

There exists a large population within the United States whose home language is not English. A substantial part of this non-English speaking populace has Spanish as its native language. Some of this population is truly bilingual, with fluency in both English and the maternal language of Spanish. However, many other families are

essentially monolingual in Spanish, with skills in English being significantly limited. For these families, the transition to English is not a quick one, and may demand years of effort to reach competence.

When the language-learning task of hearing impaired children is compounded by exposure to two different languages, one at home and a different one at school, the learning becomes much more difficult. For children with prelingual impairments of severe to profound degrees, the task may be insurmountable. The children quite often may not develop competence in either language. Since the role of the parents as language instigators and models is of considerable importance, their home language provides one essential input. Yet the language model provided by professionals in support services for the child and parents is different. When the parents have limited English-speaking skills, and the professionals dedicate their efforts to develop English language skills, there results a language conflict for the child.

The problem, then, becomes one of language choice. Will there be the use of English alone, Spanish alone, or a "bilingual approach" in some manner? Who will use which language? Most important of all, it is crucial to evaluate the factors that determine which language usage will be the most decisive in the child's communication growth.

Purpose

The purpose of this research is to examine the choice of language used from the perspective of the role of the family in the language development of a prelingually hearing impaired child. It is hypothesized that those limited-English speaking parents who learn to provide consistent and appropriate language models in their native language of Spanish will demonstrate their increased capability as parents in providing an enriching language learning environment for their hearing impaired children.

Assumptions

The first assumption made is that parent education is beneficial to the communication development of hearing impaired children. This viewpoint has been reinforced by numerous professionals in the field of hearing impairment (Ling and Ling, 1978; Pollack, 1970; Lowell, 1979).

The value of parent education has been summarized as follows by Ling and Ling (1978):

1. Parents are, with very few exceptions, the individuals who are most concerned about the development of the child.
2. Parents can do more than professionals to help the child develop verbal skills in early infancy.
3. Only parents can provide continuity of care.
4. Early intervention is most effective when parents are involved.
5. The parents' role largely determines the future of a hearing impaired child. (pp. 9-10)

Another assumption is that there exist sufficient numbers of Spanish-speaking professionals who are capable of implementing programs for limited English speaking parents of Hispanic backgrounds. This is, unfortunately, not the case, but an issue that several professionals in the field are addressing (Grant, 1972; Lerman, 1980). Recent efforts have begun to determine the competencies needed by bilingual teachers of the hearing impaired, and to establish training programs at different Universities (Bergin, 1980; Pynn, 1980).

A key assumption is made that early exposure of prelingually hearing impaired children to their parents' home language of Spanish as their first language will be beneficial in their communication skills development, and not a hindrance to future language instruction in English. As children learn language first in the home setting, and through interaction with family members, particularly parents, it is essential that there be an appropriate and stimulating language environment. It is presumed that the children will benefit more from this environment than from a limited and faulty exposure to English. In addition, the children will be learning the basics of communication skills from their parents.

Definitions

early intervention: participation in a parent-infant assessment and educational program

by parents during the first three years of the hearing impaired child's life.

hearing impairment: exists when a defect in one or more parts of the outer, middle or inner ear and its associated nerve pathways prevent the ability to adequately hear, perceive or attend to conversational speech (Dunn, 1973).

- mild hearing loss: "35-54 dB. Does not routinely require special class/school placement, but often routinely requires special speech and hearing assistance" (Moores, 1978, p. 7).
- moderate hearing loss: "55-69 dB. Occasionally requires special class/ school placement, routinely requires special speech, hearing and language assistance" (Moores, 1978, p. 7).
- severe hearing loss: "70-89 dB. Routinely requires special class/school placement and special speech, hearing, language and educational assistance" (Moores, 1978, p. 7).
- profound hearing loss: "90 dB+. Routinely requires special class/school placement, special speech, hearing, language and

educational assistance" (Moores, 1978, p. 7).

language: "the entire body of words and sounds employed by any community for intercommunication" (Ling and Ling, 1978, p. 24).

limited English speaking: those persons whose oral language skills in English are not sufficient for meaningful communication in daily living activities.

speech: "expressions of thoughts in sequences of articulated sounds to which particular meanings have been attached" (Ling and Ling, 1978, p. 23).

Delimitations

Although there are many populations in the United States with different home languages than English, this study is concerned only with the Spanish-speaking population. Further research would be valuable to indicate whether the conclusions made are applicable to other native language populations as well.

This study is addressing the issue of parent education and intervention with hearing impaired children from birth to three years of age. It is not attempting to resolve the issue of language of instruction when more formal educational intervention in the form of school occurs. It is hoped, however, that the study will

indicate some of the possible directions where future research is needed. This study is not concerned with the issue of maintenance of Spanish competence through school programs as opposed to complete transition to English alone in school. This is beyond the scope of the study, and is another topic deserving of research.

Chapter 2

REVIEW OF THE LITERATURE

Population Size

There is currently little available information as to the number of hearing impaired children in the United States from Spanish-speaking homes. Luetke (1976) estimated a population size of 3,000-4,000 hearing impaired children from Spanish-speaking families. Cortez (1979) in a CREED VII survey reported that "half of all the deaf children in New York City are Hispanic" (p. 24). The survey continued that in New York City "Spanish was the only language spoken in 9 out of every 10 homes that were visited."

According to the Office of Demographic Studies at Gallaudet College, research in the 1972-73 school year showed the following divisions of California's students 18 years and under who were enrolled in special classes for the hearing impaired (Ries, Bateman, and Schildroth, 1975).

Table 1

Ethnic Background of Hearing Impaired Students - California

Ethnic Background	Number	%
White	2,739	60.2
Black	336	7.4
Spanish-American	605	13.3
Other	161	3.5
Not Reported	712	15.6
TOTAL	4,553	100.0

There is a sizable population (13.3%) of hearing impaired children that comes from Hispanic homes in California. Equivalent situations exist not only in the metropolitan areas of New York, Florida, and the Southwest, but in the cities and rural areas throughout the United States.

Unfortunately, there is generally no precise information as to the dominant language of these Hispanic homes, whether monolingual Spanish, or English, or bilingual. One example in Los Angeles, California, is the John Tracy Clinic, where families of hearing impaired infants and preschoolers participate in parent education programs, audiological and other support services. In the initial educational service, Demonstration Home, an average weekly summary of families served showed the following ethnic background:

Table 2

Ethnic Background of Hearing Impaired Children
Demonstration Home - John Tracy Clinic

Families	Number	%
Anglo	9	36
Black	3	12
Hispanic	11	44
English-speaking	4	16
Spanish-speaking	7	28
Other	2	8
TOTAL	25	100.0

Of the Hispanic population, seven families, or 28% of the total are Spanish-speaking (Schaeffer-Dresler, 1981). Although California has a large population of Hispanic residents from primarily Mexico, Central and South America, it is not unique. Large Spanish-speaking populations from Puerto Rico, Cuba, Mexico, Central and South America are located throughout the USA.

Research in Bilingual Education

The field of bilingual education has contributed greatly toward understanding the special educational needs of the Hispanic population. Specific bilingual education programs have been mandated as necessary in alleviating the lowered academic achievement, and subsequent discrimination of children from Spanish-speaking families.

Researchers have drawn attention to the frequent yet inappropriate placement of Spanish-speaking children in special education classes and schools. Several court cases and Federal regulations have affirmed the need for appropriate programs for minority children from linguistically different homes (Gallegos, Garner and Rodríquez, 1980).

Considerable emphasis has also been placed on acknowledgment of the family's role in the child's educational program. To encourage involvement of the family requires both recognition of their cultural background and the language used predominantly at home (Trohanis, 1978; Marion, 1980; Hahn and Dunstan, 1975). Some families are reticent about visiting the school or communicating with teachers because of language barriers. Other families may view the educational system as an overwhelming bureaucracy and lack the confidence and skills to guide their child (Bergin, 1980).

In the preschool years, parental involvement is particularly important. As Hahn and Dunstan (1975) commented:

> The child does not enter the school alone. Children bring what they know of their family and culture, the past and future expectations that their families have for them. They bring with them a language, the language learned in their home, and in which they have learned to think. (p. 281)

The parents have thus set the stage for the child's future learning.

For the young handicapped child from a Spanish-speaking home, parental involvement is even more crucial (Trohanis, 1978). The role of the parents expands from the description above. They must coordinate a myriad of services provided to their child from various professionals. Their role continues as the partner in following through on their child's personal, social and educational needs at home. When families are not actively included as participants, there is a breakdown in the coordination of efforts for the child. The family may be literally peripheral rather than central to meeting the child's educational needs. In the worst cases, the parents and school are working in opposition to each other. A simple, and actual example of this could be a breakdown in communication. The family is sent a note in English telling them that their child's bus schedule has changed. The family may not understand the message correctly, and the child misses the bus. The school system responds by suspending the three-year-old child from school for one day! There is small wonder then, that there is more confusion and less cooperation with the more complex issues at school.

The Hearing Impaired Hispanic Child

With the advent of interest in the education of Hispanic children with special needs, the hearing impaired child has also received some limited attention. Researchers in the field of communication handicapped have looked at various facets of the education of these children (McCahill, 1971; Grant, 1975; Oxman, 1975; Luetke, 1976; Lerman and Cortez, 1978). Their research has delineated some of the clear and compelling reasons for providing more appropriate services to hearing impaired children from Hispanic families. The special needs of this population have been largely neglected, and the children relegated to achieving limited linguistic competence and frequently lowered academic achievement than hearing impaired children from English-speaking homes (Jensema, 1975).

One of the earliest studies of hearing impaired infants and their parents was conducted in San Antonio, Texas. Grant (1975) commented,

> Therefore, there exists a body of hearing-impaired children facing additional handicapping conditions: Spanish, not English, as the language of the home, late identification of the impairment delaying evaluation and remediation measures and poverty. (p. 5)

A survey questionnaire of their needs as perceived by Spanish-speaking families themselves confirmed many of Grant's findings in the above research (Luetke, 1976). Luetke commented that:

> It is the belief of the author that the education of the Mexican-American hearing impaired children should incorporate parental and community goals with an educational format that could improve the educational neglect of these target children. (p. 568)

A comprehensive survey of the hearing impaired population from Hispanic homes in New York City was done by the Cooperative Research Endeavors in Education for the Deaf (CREED VII) project at Lexington School for the Deaf (Lerman and Cortez, 1978). Their objective was to assess the hearing impaired child's language behavior as influenced by the following:

- Child's language functioning
- Social-emotional status of the child
- Home language environment
- Home environment
- School environment
- Deafness
- Spanish culture

Their findings were generally disheartening. The Hispanic deaf students had lower achievement in most academic areas, and poorer language skills than any other deaf subgroup. They also tended to be overrepresented in classes for the deaf multiply-handicapped.

Lerman and Cortez (1978) commented:

> The deaf Hispanic child we identified has a unique communication problem. He does not know Spanish and communicates with difficulty through gestures and signs to members of his family who

> speak mostly Spanish. The only language code available to him is the English he is taught in school. This problem creates greater isolation and more problems in the family relationship than exist in the average deaf child's family. (pp. 27-28)

In addition, the CREED VII survey reported non-participation of Hispanic families in school programs, and poor utilization of school services. The two most important factors appeared to be the presence of the father in the family (thus providing more socio-economic security), and the traditional upbringing of the family (with decreased involvement in the formal education of the child).

Delivery of Services

As professionals have become more aware of the extent of the needs of the target population of hearing impaired children from Hispanic homes, and the paucity of services available to this target group, there have been a few specific programs established. These programs range from translating materials, providing interpreters, training teachers and establishing bilingual special education programs for children and their parents. These efforts, with few exceptions, are not widespread. One reason for the relatively few programs is a continued lack of awareness, interest and research in meeting the needs of the hearing impaired, Hispanic child.

Another reason for the relatively few available services is the lack of bilingual professionals, whether teachers, audiologists, psychologists, social workers, administrators, or others. Discussion of the issue of personnel preparation began with "Proceedings of a Workshop on the Preparation of Personnel in Education of Bilingual Hearing-Impaired Children Ages 0-4" (Grant, 1972). Trinity University in San Antonio, Texas, established a graduate program for training personnel to work with the early childhood, hearing handicapped, bilingual student.

From the CREED VII study evolved the Project Latino Inservice Training and Orientation (LISTO). LISTO proposes to prepare educational staff to work with hearing impaired children from Hispanic homes (Lerman, 1981). Several additional programs are also being established to train bilingual professionals throughout the United States (Bergin, 1980).

In spite of the difficulties, there have been some efforts to establish programs for the Hispanic hearing impaired children and their families. Grant (1975) and Luetke (1976) report on the program of the José Cárdenas Center for Early Childhood Education in San Antonio, Texas. The language of the home is used with both the handicapped and non-handicapped children enrolled. Specific efforts

are made to encourage the parental role in school, and carry-through at home.

An experimental project in the New York City public schools was designed to "improve effective communication skills for hearing handicapped students whose native language was not English, and whose language deficiencies prevented them from effective participation in the learning process" (Oxman, 1975, p. 1). It consisted of supplemental resource services in both English and Spanish by bilingual teachers and aides. Though the project did not demonstrate significant improvement in English-speaking ability, Oxman felt that it had served the needs of the target population.

Also in New York City, the CREED VII project included five schools in a cooperative effort. Six models were developed to become incorporated into existing school programs. These are: family communication, training of paraprofessionals, development of functional alternate language systems, in-service teacher training, Hispanic parent groups, and resource teachers. In their experience, the most successful models are the resource teachers and the home/school paraprofessional programs.

Projecto Oportunidad, at Rhode Island School for the Deaf, is a bilingual/bicultural program for hearing impaired students and their families. A bicultural/ bilingual component is included in the Individualized

Education Plan for both the Hispanic and Portuguese students (Fischgrund, 1981).

The John Tracy Clinic, a preschool/parent education program in Los Angeles, California, has included several approaches in meeting the needs of the Spanish-speaking community. The Correspondence Courses for Parents of Hearing Impaired Infants and Preschoolers, as well as for Deaf-Blind Children, are available in both English and Spanish. The initial educational services at the Clinic include a bilingual teacher in the Demonstration Home. Parents and infant or toddler meet together as a family unit for a once weekly individual session with the teacher. Families with limited English skills learn to establish communication skills with their young child in Spanish. Audiological evaluations include a bilingual assistant who is also a parent of a hearing impaired child. Efforts are made in all programs to provide services by bilingual professionals when appropriate, including the availability of psychological support services in Spanish. An interpreter is available for other educational services such as parent classes. This is an innovative program for the Los Angeles area. Despite a high percentage of Hispanic population, few other resources offer specific and comprehensive services to meet the Hispanic family's unique needs.

The Alexander Graham Bell Association for the Deaf, Inc., is investigating areas of service to the hearing impaired through publication of materials in Spanish (Nix, 1981). An ad hoc committee has been established to determine further needs. Gallaudet College is also publishing some materials in Spanish.

Choice of Language

Despite the awakening interest in the unique needs of the target population, there is little research or agreement as to the best manner for choosing the language to be used in delivery of services. Given the importance of consistent language exposure for hearing impaired children, the choice of language used by parents and professionals is a major decision. Most educational programs for hearing impaired children assume the use of English without an awareness of the implications of a linguistically different home environment. Yet as has been indicated previously, this policy has resulted in large numbers of hearing impaired children from Hispanic homes with lower linguistic competency than other hearing impaired peers, and overinclusion in other multiply-handicapped programs.

There are Hispanic families who have fluency in both English and Spanish. For these families, the choice between usage of English and Spanish with their hearing impaired child may be difficult. However, as it becomes

clear to the family through interaction with a concerned and knowledgeable professional that their child will benefit from uniform exposure to one language, they are able to choose. The family is able to make the transition to English relatively quickly because the parents are already competent in the English language. This recommendation to use English is based on the reality that few programs in Spanish are currently available in most areas. As the child gains competency in English, the second language of Spanish can be introduced with improved possibility of success.

For Hispanic families who have limited English-speaking skills, using English only results in a communication breakdown between parent and child. One suggestion was made that instruction in Spanish sign language was an alternative for students in Spanish-speaking homes (Schein, 1977; Delgado, 1981). Difficulties still remain with this solution, unless the sign language system used by home and school both is the same, as for example with American Sign Language, or ASL. However, the child who uses ASL still has to make the transition to Spanish or English at some point in his academic studies.

Those specific bilingual projects currently in existence emphasize the use of the home language in the early initial years with all young hearing impaired children (Grant, 1975; Lerman, 1980; Fischgrund, 1980).

The main reasons for the choice of Spanish are to maintain the close parent-child communication bond, and to further encourage the parents in establishing a stimulating language environment in the home. Bolen (1981) reports the use of a bilingual approach at the Sunshine Cottage/Trinity University Parent/Infant Program in San Antonio, Texas. He refers to a number of important factors to consider when implementing programs for hearing impaired children from limited English-speaking homes. These factors include linguistic competence of parents in English and Spanish, and the degree of hearing loss of the young child.

Ling and Ling (1978) proposed that the distinction first be made between degree of hearing loss. They felt that children with moderate losses most likely had developed basic communication skills in the home language, and that therefore, "an immediate aim would be in promoting the development of the native language" (Ling and Ling, 1978, p. 230). Subsequently, child and family would make a transition to the new school language sometime prior to kindergarten.

However, they also felt that children with greater hearing losses of severe to profound in degree, and who have not established spoken language, would be best served by presentation of the school language only. This would be because of the tremendous difficulties involved in learning a first language. Presumably, the assumption is

made that the parents are both motivated and capable of learning the school language rapidly (or that the parents are less important in the language learning of their child). As the CREED VII study indicated, the Hispanic parents do not tend to learn English rapidly, or to use it with their children to any significant degree. The result is, in fact, parents who are external to the child's language development and the school's efforts.

At the John Tracy Clinic, several factors are taken into consideration when discussing language choices with parents. As the primary orientation is toward parent education, the language predominantly used by the family is the first consideration. Families who have competency skills in English are encouraged to use English with their children, particularly given the few available programs available in Spanish beyond the preschool level.

Families who have limited English-speaking skills, however, are encouraged to initially use their home language of Spanish regardless of the child's degree of hearing loss or amount of language developed. The families are guided in providing a stimulating language environment for their child in Spanish. Through the individual sessions with teacher and family, and group parent classes, the family becomes more aware of the implications of hearing loss and the language needs of their child. The decision on language choice is the parents', since they bear the

responsibility for carry through at home. Ideally, the family and professional continue in Spanish until the child has sufficient linguistic competency to be ready for introduction to English, and enrollment in a formal educational program using English.

Families that begin special educational intervention when their children are still infants or toddlers have more time for their children to develop basic language skills. Too, the family has one to two years head start in learning English themselves. Often, however, the ideal situation does not occur. It is not uncommon for Spanish-speaking families to seek assistance when their children are older than non-Hispanic hearing impaired children (Lerman and Cortez, 1978; Schaeffer-Dresler, 1981). Though initial services in the Demonstration Home are given in Spanish to the family, the child is frequently quickly enrolled in a formal educational program conducted in English only. In this situation, the best solution seems to be continued counseling of the parents of the implications of hearing loss. The family still needs encouragement to continue language stimulation of their child, as they concurrently learn English.

Parent Education and Early Intervention

The emphasis of this study is on providing consistent language exposure for hearing impaired children who come from linguistically different homes. The point

has been made that parental involvement plays a vital role in the language learning of the child. When school and parents work in unison, the child benefits from the concerted effort (Delgado, 1980; Hahn and Dunstan, 1975; Marion, 1980). There are several essential reasons for proposing that parents will provide better learning environments for their young children when they are instructed and encouraged to initially use Spanish with their infants and toddlers.

If the objective is to enable the parents to become effective language stimulators for their children, they must first of all understand what they should do. A Spanish interpreter can be helpful, but lacks immediacy of communication, opens the possibility to increased misunderstandings, and lessens the helpful direct bond that is established between parent and professional. The bilingual professional would appear to be the most positive, direct and effective approach.

Second, parents can provide appropriate language stimulation only insofar as their own competency in the language extends. If the parents have broken English patterns, consisting of a few vocabulary and scattered phrases with poor speech, it then follows that the infants will be exposed to limited and faulty language patterns. For a normally hearing child, this difficulty may be overcome through the incidental language learning that occurs

throughout the day with English-speaking persons (in the store, the doctors' office, etc.). However, the hearing impaired child is dependent upon purposeful and direct language intervention, and in general, incidental language instruction does not occur. By using Spanish with their infants, they can develop appropriate language stimulation skills.

Third, for parents facing the stress of meeting their hearing impaired infants' demanding educational needs, the pressure of learning a new language immediately can be overwhelming. To demand that the infant be spoken to only in English places more burdens on the entire family, and may alienate the parents from the support system of the extended family at a time when their needs are greater than ever. Not only may the quality of language stimulation decrease, but the quantity may also dramatically drop. A hidden assumption may also be made that English is the superior language together with denial of the importance of the family's own language and culture.

Finally, it is the author's belief that the majority of all families (Spanish and English speaking) who learn that their infant has an auditory impairment are largely unaware initially of the full implications for their child's speech and language development. Through effective counseling and educational intervention with the Spanish-speaking family in their native language, the

groundwork can be established so that knowledgeable decision making on language choice can be made by the parents. In other words, the parents can become effective and knowledgeable advocates for their hearing impaired children.

Chapter 3

METHOD OF STUDY

Overview

This study is concerned with evaluating the development of communication skills by Hispanic parents as displayed in their interactions with their hearing impaired children. It is hypothesized that those limited English-speaking parents who learn to provide consistent and appropriate language models in their native language of Spanish will demonstrate their increased capability as parents in providing an enriching language learning environment for their hearing impaired children.

Selection of Subjects

Four families with hearing impaired preschool-age children were selected for inclusion in this study with the following criteria:

1. Parent's home language is Spanish, with limited English-speaking skills.

2. No previous educational services were received for the hearing impaired child.

3. All parents have hearing in the normal range, with oral language as their own method of communication.

4. The hearing impaired child has a hearing loss of at least a severe degree with no evidence of significant secondary impairments.

5. The hearing impaired child is identified prior to third year of age, and enrolled in this study prior to the third birthday.

The four families were selected upon their commitment to become involved in a parent-infant educational intervention program at the John Tracy Clinic, Los Angeles, California. Each family was interviewed prior to their involvement, and informed of the nature of the study prior to their consent to participate.

The families involved in the study showed many additional characteristics in common (c.f., Tables 3 and 4). Each family was intact with both natural mother and father living in the home. Each family had either one or two other children who were older than the hearing impaired child. In Family 3, however, these older children were currently living with relatives in Mexico.

Family 1 is from El Salvador, and in Family 2, the mother is from El Salvador and the father is from Mexico. The parents in Families 3 and 4 are both from Mexico. Families 2 and 3 have been in the United States less than five years. Family 1 has been in the United States less than ten years, and Family 4 has been in the United States over ten years. All four families maintain traditional ties with their Hispanic background.

In Families 2, 3, and 4, the father is the primary source of income. In these families, the mother is at home in the traditional role of child caretaker and homemaker. In Family 1, the mother is employed outside of the home. Family 1 is also the only family that uses a babysitter for their child a significant portion of each day.

Two of the children in the study were female, and the other two children were male. The children in Families 1, 2, and 4 were fitted with appropriate amplification, while the child in Family 3 was unaided.

Experimental Design

The research was designed as a preliminary study consisting of one group with pretest and posttest evaluations. The pre-experimental design was as follows:

Time 1	Time 2	Time 3
Pretest	Intervention	Posttest

where:

Pretest: the evaluation of a videotape made of the parent-child interaction prior to intervention.

Intervention: participation in a parent-infant education program in Spanish.

Posttest: a second videotape evaluation of the parent-child interaction made subsequent to the intervention.

Table 3

Family Characteristics

Family	Home Country	Years in U.S.	Parents in Home	Source of Income
1	El Salvador	less than 10	mother/father	both parents employed
2	El Salvador Mexico	less than 5	mother/father	father employed
3	Mexico	less than 5	mother/father	father employed
4	Mexico	over 10 years	mother/father	father employed

Table 4

Child Characteristics

Child	Birthdate	Sex	Amplification	Siblings
1	8-19-78	Female	Yes	older brother older sister
2	8-21-79	Male	Yes	older brother
3	10-15-78	Male	No	2 older brothers
4	6-3-79	Female	Yes	older brother

It is acknowledged that the research design has several weaknesses affecting both internal and external validity (Campbell and Stanley, 1963). Because of the limitations imposed by a small population of hearing impaired pre-school children from Spanish-speaking families, random selection of control and experimental groups as required for true experimental design was not possible. The population was further restricted by selection criteria to lessen the impact of such significant variables as degree and age of onset of hearing loss, language ability of parents in both Spanish and English, and the type of educational intervention.

Though the use of a quasi-experimental design of non-equivalent control groups would remove most threats to internal validity, it was not deemed appropriate because of serious difficulties in group selection. Those families who received educational support services in Spanish are involved in a parent-centered program in which they must take the initiative to attend and travel to the educational program. Those other programs that are provided in the parent's own home are available only in English. The home visit programs may also reflect a strong bias to a child-centered (as contrasted to a parent-centered) orientation. Thus, the families in a home visit program would not function as an appropriate control group because of the variable of parent motivation. Finally, a static group

comparison is also deemed to be inappropriate since it would by definition be difficult to locate a control group of hearing impaired children who are not receiving intervention of at least an audiological nature.

Despite the limitations of this research design, it is believed that using the pretest/posttest comparison is appropriate for measuring changes due to intervention in the skill development of Spanish-speaking parents as providers of a stimulating language environment for their hearing impaired children.

Instrumentation

The evaluation of the parent's skills in providing an appropriate and stimulating language environment was made through analysis of a fifteen-minute videotape of the parent-child interaction in the Demonstration Home setting at John Tracy Clinic. Both the pretest and posttest activities involved the parents preparing a simple snack at the kitchen table for their hearing impaired child. The activity was selected for its similarity to typical home activities of preparing meals. The necessary materials were all provided to the parents. These included peanut butter, fruit, crackers, juice, napkins, plates, knife, cups, spoons, and bowls.

The family was alone in the Demonstration Home while preparing the snack with the child. The videotaping was made through a one-way mirror to avoid distracting the

young child. In all videotaped evaluation sessions, the mother prepared the snack with the child, and was the parent evaluated.

The evaluation instrument used is an adaptation of the "Videotape Rating Scale, Assessment of Parental Teaching Styles" developed by the Minneapolis Public Schools Family Oriented Infant/Preschool Program for Hearing Impaired Children (Ages 0-4/5 Years) and Their Parents (Northcott, 1978). The program reports:

> At the present time, the rating scale is being studied as a valid evaluation instrument to provide aggregate information across a whole group of parents and children. Inter-rater reliability has been established through use of the grid system and staff agreement on methodology, philosophy, principles and a basic number of terms and definitions. However, the second stage of implementation, that is transferring the data from the sheets to the rating scale for appropriate selection of the semantic differential, is currently being tested by the staff and evaluation consultant from the University of Minnesota. (p. 244)

The adapted Videotape Rating Scale was used without the grid system designed by the Minneapolis program. A pilot evaluation using the assessment instrument as adapted was made with a Spanish-speaking family not involved in the research study. The pilot videotape was viewed and evaluated by the author and an independent Spanish-speaking examiner who also had experience in working with hearing impaired preschool children and their parents. The scores were compared between the two evaluators with the results showing an 82% agreement on the individual components of

the assessment instrument with 0-1 point difference. The same two evaluators then completed the assessment on the pretest and posttest evaluations of the research families. The mean of the two scores for each family was used as the score for the family.

The adapted Videotape Rating Scale consists of four main sections (c.f., Appendix A). These are:

I. Use of Language

II. Parental Teaching Style

III. Parent's Language Pattern Mode

IV. Parent's Method of Interaction

Each general section is subdivided into more specific components. The individual components are evaluated on a 1-5 point scale with the following meaning:

1 = almost never

2 = seldom

3 = occasionally

4 = frequently

5 = almost always

Each general section is then summarized on a 1-5 point scale with the following meaning:

1 = inappropriate

2 = rarely appropriate

3 = sometimes appropriate

4 = frequently appropriate

5 = almost always appropriate

It was considered important to summarize the evaluations for each section because individual components could be either positive or negative.

The first section is the Use of Language. This section was an addition to the Videotape Rating Scale in order to assess the use of English or Spanish by the parent being observed. An example of appropriate language usage would be complete thoughts expressed in either Spanish or English. Inappropriate language usage by parents would be incorrect vocabulary or syntax, or the mixing of Spanish and English by the parent within one phrase (e.g., más milk).

The second section is Parental Teaching Style. This assesses the quality and quantity of oral communication between parent and child. The description of the individual components is as follows:

Point A The parent communicates verbally, as opposed to non-verbally (i.e., body language, facial grimaces, gestures, sign language).

Point B The parent provides frequent language stimulation. This point is added to the scale to differentiate from relatively sparse communication.

Point C The parent provides a model by encouraging a verbal response from the child, both spontaneously or through imitation.

Point D The parent expands the child's utterance or communicative intent such that the child is stimulated to use more language.

Point E The parent uses environmental sound, and encourages the child's active listening.

Appropriate parental teaching style is a verbal pattern which encourages the child's active participation in communicating. Inappropriate style is a non-verbal parent who ignores the utterances of the child.

Section III evaluates the Parent's Language Pattern Mode. Primarily, it is an assessment of the syntatic structure used by the parent, and its level of difficulty as compared to the child's ability to understand.

Point A The parent uses one word or primarily gestures to communicate (e.g., come, no).

Point B The parent uses two words or phrase with gesture occasionally (e.g., all-gone with outstretched hands).

Point C The parent uses simple phrases without dependence upon gestures (e.g., more milk, in the bowl).

Point D · The parent uses a simple sentence (e.g., Throw it away, Where's the spoon?).

Point E · The parent uses a more complex sentence expressing two or more thoughts (e.g., Wipe your mouth before you get down).

Appropriate language is the use of primarily simple phrases and sentences with occasional use of one or two words with inflection (e.g., Hot!). Inappropriate language is the use of primarily one word labeling (e.g., apple, spoon), gesturing only, or the use of complex sentences frequently. These expectations are made because of the young age of the children and their limited receptive language ability at this stage.

Section IV is assessing the Parent's Method of Interaction, and is related to their general relationship with their child on a one-to-one basis.

Point A The parent uses various means for eliciting their child's attention and eye-contact. This can be accomplished through tactile (i.e., touching, tapping, pulling at face), verbal (calling name, use of inflection), object usage (e.g., by manipulating materials to draw the child's attention), and waiting. This last point was added to the Videotape

Rating Scale to assess parent's expectations of child's attention without distracting movements.

Point B The parent establishes a cooperative relationship with their child. The following are viewed as positive characteristics for the parents:

<u>stimulating participation</u> by allowing the child to manipulate and independently do as much as possible,

<u>encouraging</u> the child by use of frequent praise and attention,

<u>redirecting</u> the child's attention from distracting or negative behavior by showing a new object, changing pace, or removing distraction,

<u>ignoring</u> inappropriate behavior by removing attention to the child.

Negative techniques for the parents to use are:

<u>physically restraining</u> the child excessively without first trying more positive techniques,

<u>dominating</u> the activity by not permitting the child to participate or choose,

use of frequent negatives when not necessary.

Appropriate parental interaction involves a lively give and take between parent and child with high motivation and expectations by the parent, and frequent, eager attention by the child. Inappropriate interaction might be a restrictive parent who physically manipulates the child frequently, and is more concerned about task completion than the child's language stimulation.

As the purpose of this study is to evaluate the level of parental effectiveness in providing a stimulating language environment, the child's language usage is not assessed.

Intervention

The intervention consisted of a parent-education program for families with preschool hearing impaired children over a six-month period of time. The program involved a one-hour individual session each week for parent(s) and child with a bilingual teacher of the hearing impaired. Other family members were always welcome to attend the sessions as well.

The sessions were individually adapted to each family's particular needs, but concentrated on the following areas:

1. The importance of the parent's role as language stimulators for their child.

2. The use of appropriate language by the parents as related to the child's own language level.

3. The use of Spanish or English with each child.

4. The development of appropriate techniques by the parents in encouraging their child's attention to oral language.

5. The development of the child's awareness of both environmental sounds and voice.

6. The care and use of appropriate amplification.

7. The various means of motivating the child's interest, attention, and participation.

8. The implications of hearing loss for their child.

9. Behavioral management techniques.

10. Particular concerns or problems brought up by the parents.

The sessions were scheduled in the Demonstration Home at the John Tracy Clinic, which consisted of a complete kitchen area, living room, sleeping area, and adjacent bathroom. Household activities such as cooking, washing dishes, vacuuming, dressing, and bathing were used to illustrate the above techniques.

The parents were required to take the initiative to provide their own transportation to the intervention program, and were given assignments occasionally to practice with their child at home during the week.

A typical assignment might be to increase the amount of time of hearing aid usage by the child's home, or to practice pointing out typical household environmental sounds. The intervention program stressed the development of oral skills (i.e., speechreading and auditory training) and did not involve the use of sign language.

The amount of participation of the families in the program is presented in Table 5.

Table 5

Parent Participation in Demonstration Home

Family	Months of Participation	Number of Sessions	Number of Absences	Total Sessions Scheduled
1	6	13	4	17
2	6	14	2	16
3	6	9	8	17
4	7	6	17	23

Chapter 4

RESULTS

The adapted Videotape Rating Scale of Parents is used to evaluate the development of communication skills by the parents in interactions with the hearing impaired child. The four main sections evaluated are: Use of Language, Parental Teaching Style, Parent's Language Pattern Mode, and Parent's Method of Interaction. The results are compared in two ways.

First, each family is individually compared from the pretest to the posttest evaluation on each of the four main sections as shown in Table 6. This individual assessment permits discussion of relevant factors affecting the parent's skill development.

Second, the families are compared as a group from their mean pretest scores to mean posttest scores in each section and individual component as shown in Table 7. Each family score is the mean of the scores of the two evaluators, with the exception of the pretest for Family 2 and posttest for Family 3, which are based upon one evaluator score only. The mean score is used to give a more reliable measure, even though the two evaluators had an

Table 6

Intra-Family Comparison

Family 1	Sections			
	I	II	III	IV
Pretest				
Score	4.5	2.0	2.5	2.5
Percentage	90%	40%	50%	50%
Posttest				
Score	4.0	3.5	4.0	4.0
Percentage	80%	70%	80%	80%
Point Change	(.5)	1.5	1.5	1.5
Percentage Change	(10%)	30%	30%	30%

Family 2	Sections			
	I	II	III	IV
Pretest				
Score	4.0	2.0	3.0	2.0
Percentage	80%	40%	60%	40%
Posttest				
Score	4.5	3.5	3.5	3.5
Percentage	90%	70%	70%	70%
Point Change	0.5	1.5	0.5	1.5
Percentage Change	10%	30%	10%	30%

Family 3	Sections			
	I	II	III	IV
Pretest				
Score	4.5	1.5	3.0	2.0
Percentage	90%	30%	60%	40%
Posttest				
Score	5.0	3.0	4.0	3.0
Percentage	100%	60%	80%	60%
Point Change	0.5	1.5	1.0	1.0
Percentage Change	10%	30%	20%	20%

Family 4	Sections			
	I	II	III	IV
Pretest				
Score	4.5	3.5	3.5	3.5
Percentage	90%	70%	70%	70%
Posttest				
Score	4.5	4.0	3.5	3.5
Percentage	90%	80%	70%	70%
Point Change	-0-	0.5	-0-	-0-
Percentage Change	-0-	10%	-0-	-0-

Table 7

Comparison of Four Families

		Pretest	Posttest	Change
I.	Use of Language			
	A. Spanish	5.0 100.0%	4.9 98.0%	(0.1) (2.0%)
	B. English	1.1 22.0%	1.4 28.0%	0.3 6.0%
	SUMMARY	4.4 88.0%	4.5 90.0%	0.1 2.0%
II.	Parental Teaching Style			
	A. Parent communicates verbally	3.4 68.0%	4.4 88.0%	1.0 20.0%
	B. Parent provides frequent language	2.9 58.0%	3.8 76.0%	0.9 18.0%
	C. Parent provides model/ verbal response	2.1 42.0%	3.1 62.0%	1.0 20.0%
	D. Parent expands child's utterance	2.0 40.0%	2.8 56.0%	0.8 16.0%
	E. Parent uses environmental sounds	1.3 26.0%	2.5 50.0%	1.2 24.0%
	SUMMARY	2.3 46.0%	3.4 68.0%	1.1 22.0%
III.	Parent's Language Pattern Mode			
	A. One word (and gesture)	2.5 50.0%	3.3 66.0%	0.8 16.0%
	B. Two words/phrase (and gesture)	2.5 50.0%	3.5 70.0%	1.0 20.0%
	C. Phrases	3.3 66.0%	3.6 72.0%	0.3 6.0%
	D. Simple Sentence	3.1 62.0%	3.8 76.0%	0.7 14.0%
	E. Complex Sentence	3.0 60.0%	2.6 52.0%	(0.4) (8.0%)
	SUMMARY	3.0 60.0%	3.8 76.0%	0.8 16.0%

Table 7 (continued)

	Pretest	Posttest	Change
IV. Parent's Method of Interaction			
A. Eliciting Attention			
1. Tactile	2.1 42.0%	3.3 66.0%	1.2 24.0%
2. Verbal	3.1 62.0%	3.3 66.0%	0.3 6.0%
3. Object Usage	2.5 50.0%	3.6 72.0%	1.1 22.0%
4. Waiting for Visual Contact	1.8 36.0%	3.6 72.0%	1.8 36.0%
B. Overt Action			
1. Ignoring	2.8 56.0%	2.4 48.0%	(0.4) (8.0%)
2. Physically Restraining	3.1 62.0%	2.4 48.0%	(0.7) (14.0%)
3. Dominating	2.5 50.0%	2.3 46.0%	(0.2) (4.0%)
4. Negative	2.8 56.0%	2.5 50.0%	(0.3) (6.0%)
5. Encouraging	2.5 50.0%	3.6 72.0%	1.1 22.0%
6. Redirecting	2.4 48.0%	3.5 70.0%	1.1 22.0%
7. Stimulating participation	2.5 50.0%	4.1 82.0%	1.6 32.0%
SUMMARY	2.5 50.0%	3.5 70.0%	1.0 20.0%

82% agreement with 0 to 1 point difference on the pilot test.

The mean scores in Tables 6 and 7 have also been presented in percentages to facilitate comparison. Inferential statistics were not used because of the small size of the sample.

Individual Family Comparisons

The first comparison is made on an individual family basis to assess their growth in communication skills with their hearing impaired child. The mean scores and percentages are presented in Table 6.

Family 1 showed consistent growth in the areas of teaching style (30%), language pattern used (30%), and method of interaction with their child (30%). The pretest of the family indicated a tendency to be non-verbal with a reliance upon informal gestures to communicate. The use of language (Spanish/English) did not improve, which indicates a problem. When the family began the intervention program, they spoke only Spanish with their child. As the parents began considering a formal educational program for hearing impaired children in English only, they began introducing English to their child. Their use of English was not always semantically or syntatically correct. It was often mixed with Spanish within phrases or sentences. The use of English consisted primarily of labeling objects on a repetitive basis. Their language model in Spanish,

however, continued to show improvement. The family showed considerable need for structured guidance in the introduction of English.

Family 2 also showed steady growth in providing a stimulating language environment in Spanish. The family also tended to be non-verbal initially, and relied upon tactile means to communicate. The family became more verbal in communicating and showed a 30% increase in the parental teaching style. The family began the intervention program with many appropriate language patterns, and showed slight growth in this area of 10%. Though the family showed a 30% improvement in the parent's method of interaction, there was a tendency to use physical manipulations on a frequent basis. The family was consistent in participation in the program (c.f., Table 4). They have not yet begun to introduce English consistently with their child, and are continuing to practice their skils in providing a stimulating language environment in Spanish.

Family 3 also indicated steady growth in their communication skills ability with their child. The family had a 30% increase in parental teaching style techniques and 20% improvement in use of language patterns and methods of interaction. The family missed half of the sessions because of transportation problems and was assisted with frequent telephone conversations. The family had a very difficult time initially with behavior management of their

child but made significant strides in this area. They have also not begun to introduce English with their child.

Family 4 showed the least improvement of all the families overall, which may be reflective of the poor attendance rate, 26% of sessions scheduled. However, the family showed the most competence initially in the pretest of all the families in the areas of teaching style, language patterns, and methods of interaction. The family showed a 10% increase in the use of teaching style skills, with no increase in all other areas. The family has not begun the introduction of English, although they had initiated efforts by the end of the study to place their child in an English-speaking program.

Comparison of Four Families

Some trends did emerge in the comparison of the four families as a unit. The use of language showed slight improvement primarily because of the aforementioned introduction of English by Family 1. It is important to note that the criterion is not determining that one language usage is better than another, but rather assessing the skill of the parent in using that language. The use of appropriate language by the parents is a major point of this study. It has been emphasized that limited-English speaking parents will have a difficult time providing a stimulating language environment in English. However, given instruction in Spanish and encouraged to use Spanish,

they can proceed to serve as good language models for their children. This, in fact, did occur in the sections of parental teaching style, parent's language mode, and parent's method of interaction; c.f., Table 6. All three sections showed growth in the parent's skills.

In the section on parental teaching style, the families showed a 20% increase in their verbal communication with their child. Though the parents learned to encourage their child's verbal responses, they had more difficulty in expanding the child's utterance. The parents also showed considerably more awareness of the environmental sounds they could demonstrate for their child.

The language pattern mode of the parents consisted primarily of two words, phrases, and simple sentences. The parents learned to use fewer complex sentences as these were inappropriate for their children. There was an increase in the use of one word/gesture, which may be reflective of the introduction of English and the parent's more limited competence therefore.

The parent's method of interaction indicated a decline in the use of such negative skills by the parents as physically restraining (14%), dominating (4%), and negative feedback (6%). The parents did not show improvement in the area of ignoring their child's negative behavior, and the parents continued to use tactile means to obtain their child's attention.

Though the level of communication skill development of the children in the study was not assessed, it was observed that they increased their attention skills to their parents' communicative efforts. The improvement in behavior of the children from the pretest to posttest was dramatic in two instances. It would be quite worthwhile to study in more detail the child's progress in future studies.

Chapter 5

SUMMARY

This study has been a preliminary investigation into the important question of language choice and usage by Spanish-speaking parents with hearing impaired children. It has been presented from the perspective of the crucial role parents can have in the early educational intervention of their hearing impaired toddlers. The study showed definite indications that the limited English-speaking parents learned to improve their skills in providing stimulating and enriching language learning environments for their hearing impaired children through instruction and use of Spanish. The four families improved their skills both in attending to the child's communicative intents and in giving appropriate language models themselves.

It is interesting to note that three of the families used Spanish predominately with their child. One family decided to introduce English toward the end of the study, with some resulting difficulties. The family began to use less verbal stimulation with the child, more labeling of objects with single words, and frequently incorrect grammar and pronunciation. This seems to indicate that the introduction of English requires careful and consistent guidance

for the parents by a skilled professional. Even then, it is not an easy task for the parents, particularly when they are struggling to learn English themselves.

The intent of the study has been to focus on the skills of the parents in communicating with their child when using their native language. The role of the professional has been as a guide to the parents in this endeavor. This idea has been stressed with the parents. Often the parents would express their appreciation for the efforts of the teacher with their child, overlooking their own role and responsibility. They needed frequent reminders to practice the demonstrated skills at home, and to maintain carry-through from the Demonstration Homes lessons. This relegation of responsibility entirely to the professional does not seem to be a unique attitude of just Spanish-speaking families. Yet it is an important consideration for any parent-infant intervention program. Using daily household activities familiar to the family's home setting provided a basis for the parents to understand their own role in helping their child. It helped to bridge the transition from being primarily a traditional caretaker to also include the role of language stimulator.

The study assessed growth in the parents' skills using distinct measurement of various characteristics such as parental teaching style, language pattern mode, and method of interaction. Growth was observed in more informal ways as well. The parents showed more of a

realization of their joint participation in the educational intervention with their child by maintaining consistent attendance or telephone contact. The parents began to report more of their observations at home of their child's communicative intents. Other family members were often brought to sessions so that they could also learn and participate. On several occasions, parents expressed increased confidence in their own ability to communicate with their child.

Implications

The implications of this study for professionals who work with limited English-speaking families with hearing impaired children are several. They are as follows:

First, the limited English-speaking Hispanic family may provide a more stimulating language environment for its child when they are actively encouraged to speak with their young child in Spanish. This seems to be preferable to limiting the family initially to a scanty and faulty English model.

Second, the professionals providing support services need to be competent bilingually in Spanish and English. They should be knowledgeable of the implications of hearing impairment on speech and language development, and competent in guiding the family in its difficult task.

Third, the family needs considerable support in adapting to their child's special needs. Their task is

lightened when their personal needs (financial, familial, and emotional) are being met. It would be desirable for them to learn English, and understand its benefit for their hearing impaired child upon entering formal school programs. This is an ideal solution that does not always occur, and professionals should be aware of this fact and its ramifications.

This research also indicates the need for future study of the needs of limited-English speaking, Hispanic parents of hearing impaired children. It would be of considerable value to assess the same skills development of limited-English speaking parents who were instructed in English only, and encouraged to use only English with their children. Further study also needs to be done on the introduction of English and the best manner for so doing.

Recommendations

The hearing impaired child from a limited English-speaking, Hispanic family faces a unique communicative dilemma. By nature of the hearing loss, he or she has a significant impediment to language development. Instruction of the child in English may exacerbate the communicative attempts with the family. Use of Spanish by the family may hinder communicative growth by the child in the school language of English. There are a myriad of factors to consider, yet one point is clear. It is time to bridge

the communicative barriers faced by the hearing impaired, Hispanic child.

1. The first recommendation is to increase the competency of professionals who work with Hispanic families and their hearing impaired children. These professionals are not only the teachers, but the audiologists, psychologists, social workers, administrators and other educational personnel who come in contact with them. Their skills need to be improved in the areas of bilingual linguistic competence, understanding of cultural factors, and the combined implications of dual language development concurrent with hearing loss. This is not a new idea, but rather the basic step upon which any program is dependent.

2. It is recommended that programs stressing parental involvement and early intervention with hearing impaired infants and toddlers provide programs in the most appropriate language for the family to participate. For the bilingual family, this may be in English primarily because of the lack of Spanish-speaking programs and the parents' existing competence in English. For the limited English-speaking family, the only reasonable choice would appear to be a program initially in Spanish, so as to maintain the parents' role as language stimulators for the child.

3. There is a need for a model or models designed to provide for the most effective means of meeting the

needs of the hearing impaired, Hispanic population. Serious consideration should be made as to the appropriate time and manner for the introduction of English. With few notable exceptions, formal educational programs are offered in English only, even as young as eighteen months to two years of age. This de facto policy establishes a sink or swim situation in English only, perhaps long before toddler and parent are ready for the transition.

4. Finally, it would be valuable to conduct further research into those programs serving Hispanic, hearing impaired children. Some possibilities would be to investigate the results of programs using English only, as well as those programs providing services in Spanish. More long-term research on the communication skill development of the children could provide important information. At the very least, further survey of the extent and needs of the Hispanic hearing impaired population would be desirable. This would provide more concrete information as to the scope of the programs that may need to be established.

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APPENDIX

VIDEOTAPE RATING SCALE OF PARENT

Date _____ Evaluator _____

Family _____ Pretest _____ Posttest _____

I. Use of Language	Almost Never	Seldom	Occasionally	Frequently	Almost Always
A. Spanish	1	2	3	4	5
B. English	1	2	3	4	5

SUMMARY	Not Approp.	Rarely Approp.	Sometimes Approp.	Often Approp.	Almost Always Approp.
	(1)	(2)	(3)	(4)	(5)

II. Parental Teaching Style	Almost Never	Seldom	Occasionally	Frequently	Almost Always
A. Parent communicates verbally	1	2	3	4	5
B. Parent provides frequent language stimulation	1	2	3	4	5
C. Parent provides model/ encourages response	1	2	3	4	5
D. Parent expands child's utterance	1	2	3	4	5
E. Parent uses environmental sound	1	2	3	4	5

SUMMARY	Not Approp.	Rarely Approp.	Sometimes Approp.	Often Approp.	Almost Always Approp.
	(1)	(2)	(3)	(4)	(5)

Scale adapted from Videotape Rating Scale (Northcott, 1978, pp. 244-260).

Videotape Rating Scale of Parent (continued)

III. Parent's Language Pattern Mode	Almost Never	Seldom	Occasionally	Frequently	Almost Always
A. One word (and gesture)	1	2	3	4	5
B. Two words/phrase (and gesture)	1	2	3	4	5
C. Phrases	1	2	3	4	5
D. Simple Sentence	1	2	3	4	5
E. Complex Sentence	1	2	3	4	5

SUMMARY	Not Approp.	Rarely Approp.	Sometimes Approp.	Often Approp.	Almost Always Approp.
	(1)	(2)	(3)	(4)	(5)

IV. Parent's Method of Interaction	Almost Never	Seldom	Occasionally	Frequently	Almost Always
A. Eliciting Attention					
1. Tactile	1	2	3	4	5
2. Verbal	1	2	3	4	5
3. Object Usage	1	2	3	4	5
4. Waiting for Visual Contact	1	2	3	4	5
B. Overt Action					
1. Ignoring	1	2	3	4	5
2. Physical Restraining	1	2	3	4	5
3. Dominating	1	2	3	4	5
4. Negative	1	2	3	4	5
5. Encouraging	1	2	3	4	5
6. Redirecting	1	2	3	4	5
7. Stimulating Participation	1	2	3	4	5

SUMMARY	Not Approp.	Rarely Approp.	Sometimes Approp.	Often Approp.	Almost Always Approp.
	(1)	(2)	(3)	(4)	(5)

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